# HONDA®

## Rotary Mower

# HR17

OWNER'S MANUAL

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Thank you for purchasing a Honda Lawn Mower.
This HR17 meets C.P.S.C. blade safety requirement for walk behind rotary power mowers.
Remember any powered product can be potential source of danger if misused or improperly maintained. As you read this manual, pay particular attention to statements preceded by the following words:

**WARNING: Indicates a strong possibility of severe personal injury or loss of life if instructions are not followed.**

**CAUTION:** Indicates a possibility of personal injury or equipment damage if instructions are not followed.

NOTE: Indicates points of particular interest for more efficient and convenient operation.

All information in this publication is based on the latest product information available at the time of approval for printing. Honda Motor Co., Ltd. reserves the right to make changes at any time without notice and without incurring any obligation.

**WARNING**

- The Honda rotary mower is designed to give safe and dependable service if operated and maintained according to instructions and intended use: mowing (cutting) grass and bagging cut grass, when equipped with the grass bag. Any other use could be dangerous.
- Read and understand this Owner's Manual before operating the mower. Failure to do so could result in personal injury or equipment damage.

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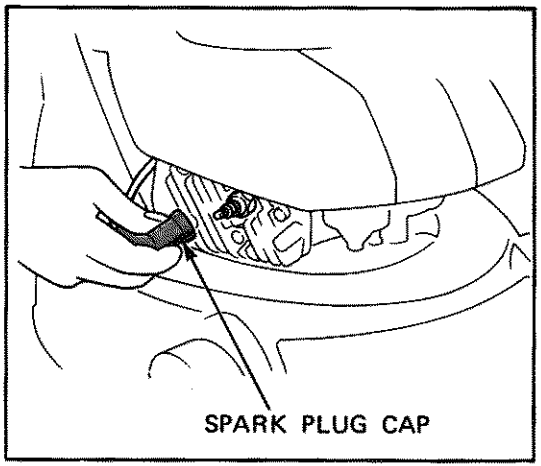
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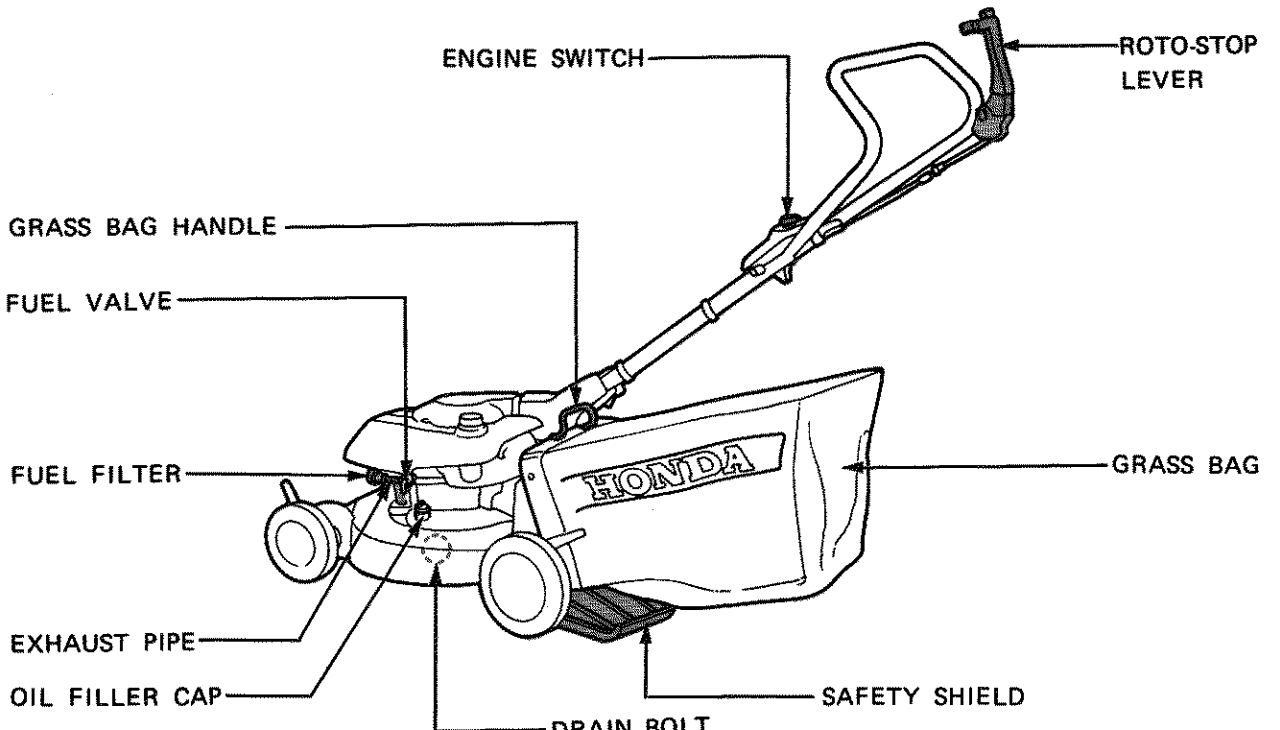
## GENERAL SAFETY

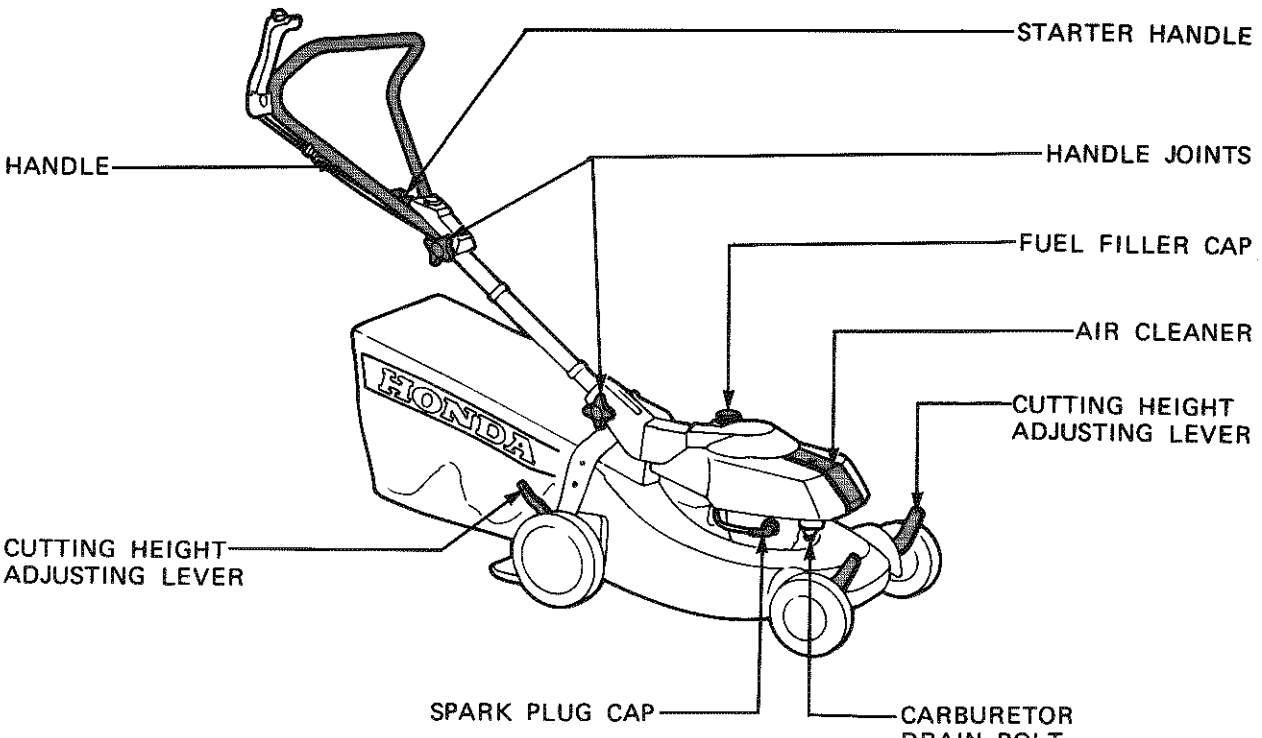
**WARNING**

- Know how to stop the engine quickly and understand operation of all the controls. Never permit anyone to operate the mower without proper instruction.
- Always stop the engine whenever you are not cutting, even if temporarily. If the mower is left on the lawn with the engine running, the lawn beneath the muffler may become discolored due to heat.
- The safety shield and side guard are for your protection; keep them in place at all times.
- The blade is sharp and dangerous. Never put your hands or feet under the mower. Never tilt the mower to expose the blade while the engine is running. If you find it necessary to work on the blade or mower, stop the engine and remove the spark plug cap.
- Do not cut the wet lawn and do not operate the mower in rain.
- Keep clear of the discharge opening when the bag is not attached to avoid being hit by a flying object.
- Clear the lawn of sticks, stones, or debris before mowing. Mow only in cleared areas in daylight or good artificial light.
- Protect yourself by wearing long trousers and appropriate shoes. Don't wear loose fitting clothing or sandals when mowing.
- Keep children and pets away from the mower at all times.
- If the blade strike a stone, sprinkler head, etc., be sure the blade, blade holder, woodruff key, fasteners, crankshaft, etc. are in good condition before continuing to mow. Replace any damaged parts immediately.



## COMPONENT IDENTIFICATION




STARTER HANDLE
HANDLE
HANDLE JOINTS
FUEL FILLER CAP
AIR CLEANER
CUTTING HEIGHT
ADJUSTING LEVER
CUTTING HEIGHT
ADJUSTING LEVER
SPARK PLUG CAP
CARBURETOR
DRAIN BOLT
HONDA

## OPERATION

The HR17 may be used either with the grass bag, or without the bag as a mulching mower.

The following suggestions and rules are intended to help you operate your Honda HR17 under the safest conditions possible. Be alert and exercise the same care using the mower as you would using any other power tool.

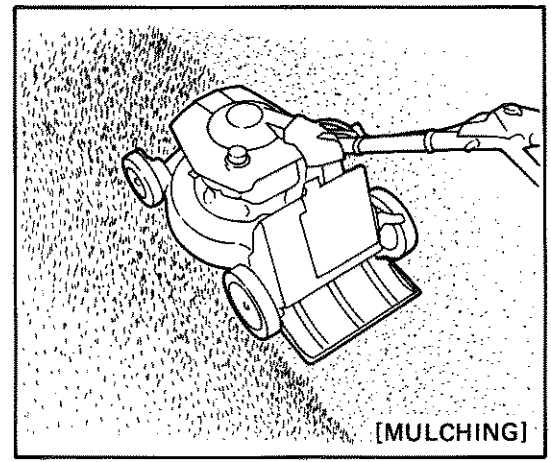
**WARNING** Be especially careful when mowing uneven or rough ground. The mower may tilt, exposing the blade, and hidden objects could be thrown by the blade. Keep all four wheels on the ground.

**CAUTION:**

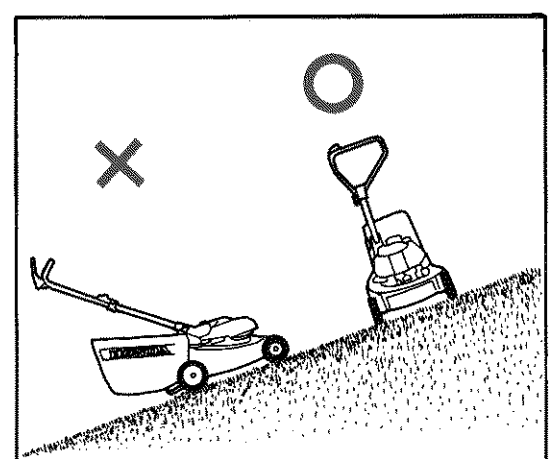
- Use extra care when mowing around objects to keep the blade from striking them. Never deliberately mow over any object.
- Stop the engine immediately if the blade hits an object or the mower starts to vibrate. Remove the spark plug cap (keep the wire away from the plug) and inspect for damage.

NOTE:

- Mow across slopes. Do not mow excessively steep slopes.
- Always push, never pull, a mower with the engine running. Control direction by the handle, not by foot pressure on the mower housing.
- Keep a firm hold on the handle and walk, never run, with the mower.



[MULCHING]



## BEFORE YOU START THE MOWER

1. Check the engine oil level.

**CAUTION:**

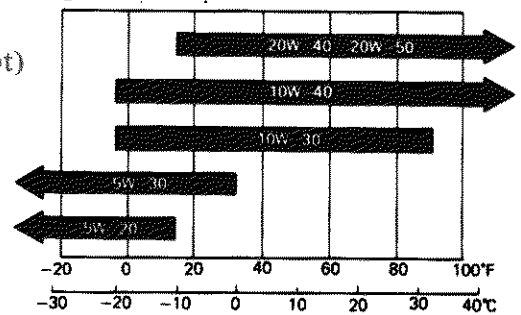
- Engine oil is a major factor affecting engine performance and service life. Non-detergent or vegetable oils are not recommended.
- Running the engine with insufficient oil can cause serious engine damage.

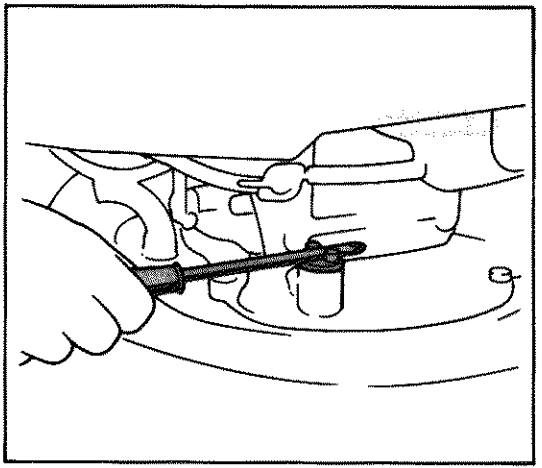
Use Honda 4-stroke oil, or an equivalent. Use only high detergent, premium quality motor oil certified to meet or exceed U.S. automobile manufacturers' requirements for service classification SE. Motor oils intended for Service SE will show this designation on the container.

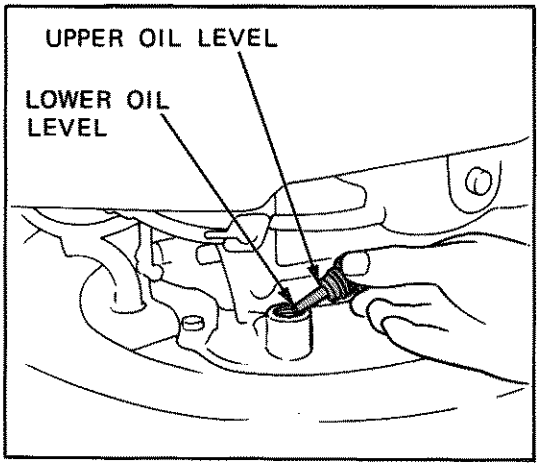
Recommended oil viscosity: SAE 10W-40

A. With the mower on the level surface, remove the oil filler cap/dipstick using a screwdriver as illustrated.
B. If the level is low, add the recommended oil to the UPPER mark on the dipstick. Do not overfill; excess oil will result in power loss and smoking.

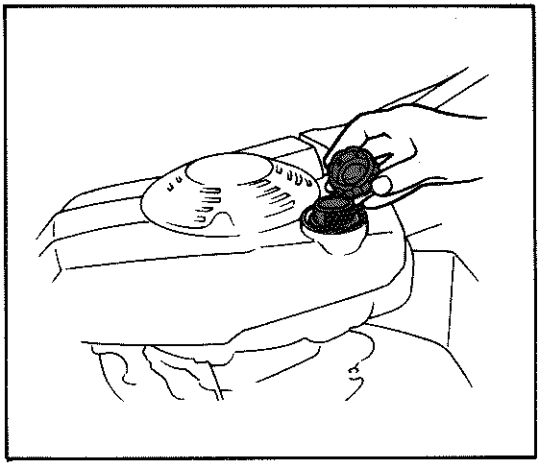
Oil capacity: 0.44ℓ (0.93 US pt)





2. Check the fuel level.
Use automotive gasoline. Never use an oil/gasoline mixture or dirty gasoline. Avoid getting dirt, dust or water in the fuel tank.



WARNING

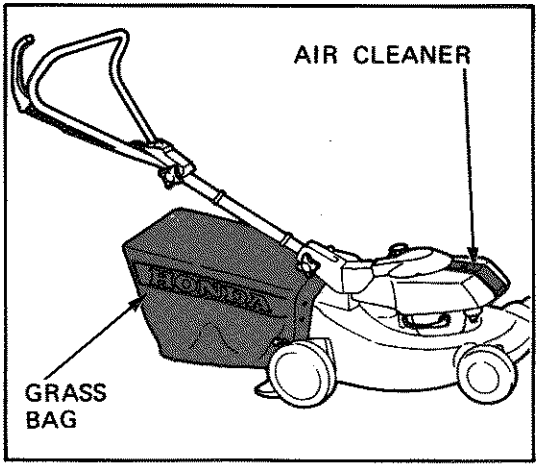
- Gasoline is extremely flammable and explosive under certain conditions. Refuel in a well ventilated area with the engine stopped.
- Replenish when the engine is cold.
- Do not smoke or allow flames or sparks in the area where the mower is refuled or where gasoline is stored.
- Be careful not to spill fuel when refuling.
  Fuel vapor or spilled fuel may ignite. Make sure the area is dry before starting the engine.
- Do not overfill the tank and make sure the filler cap is securely closed after refueling.

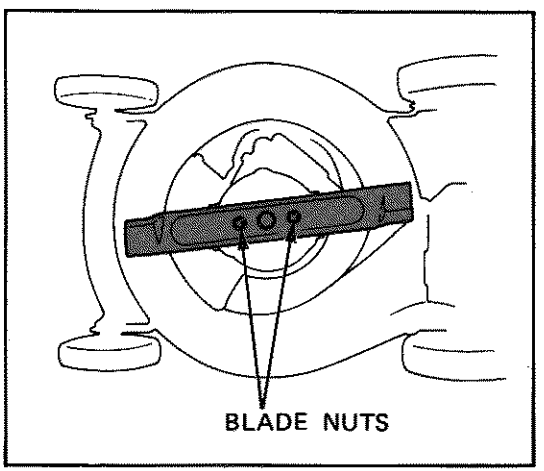
**CAUTION:** Gasoline substitutes, such as gasohol etc., are not recommended, they may be harmful to the fuel system components.

3. Check the grass bag for fraying, tears and clogged mesh.
   Wash the bag with water if necessary, and let it dry thoroughly. Grass will not chute properly without adequate ventilation through the bag. Make sure the grass bag is latched securely (P. 11).

   **WARNING** To be certain that the engine will not start accidentally, remove the spark plug cap before performing this inspection.

4. Check and clean the air cleaner element if it is dirty (P. 23).
5. Check the blade nuts for tightness.
   Torque: 3.0 – 3.5 kg m (22–25 ft lb)



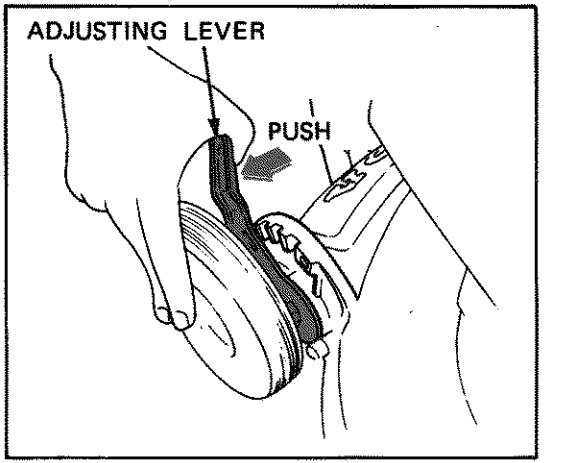



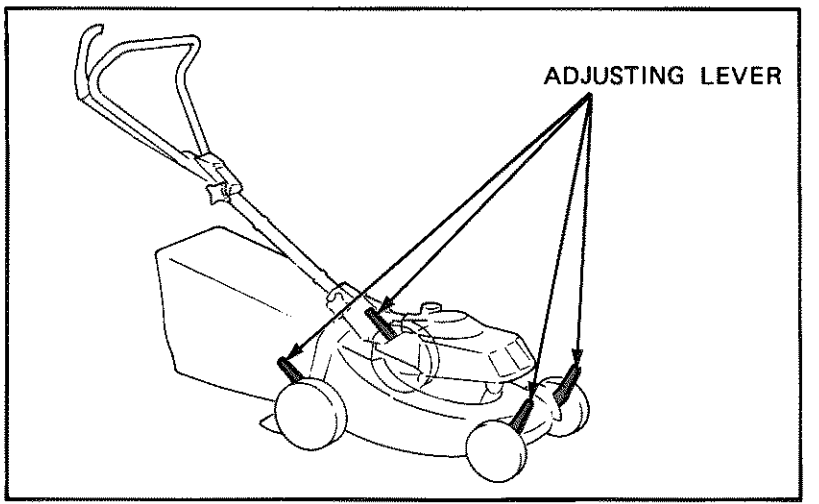
**Cutting Height Adjustment**

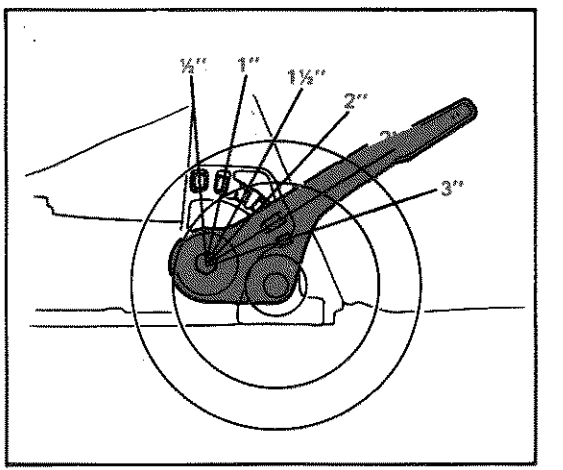
Six settings are available: 1/2", 1", 1-1/2", 2", 2-1/2", 3"

To change blade height:

1. Stop the engine.
2. Push the adjusting lever toward the wheel and move it up or down to lower or raise the blade height.
3. Release the lever in the appropriate notch.
4. Adjust the other three wheels. Make sure all four wheels are at the same level.



### Grass Bag Removal and Installation

The bag is subject to wear under normal usage; frequently check for fraying and tears. Replace deteriorated bags only with Honda replacement bags or equivalent. When the bag needs cleaning, wash it with water and make sure it is dry before using it.

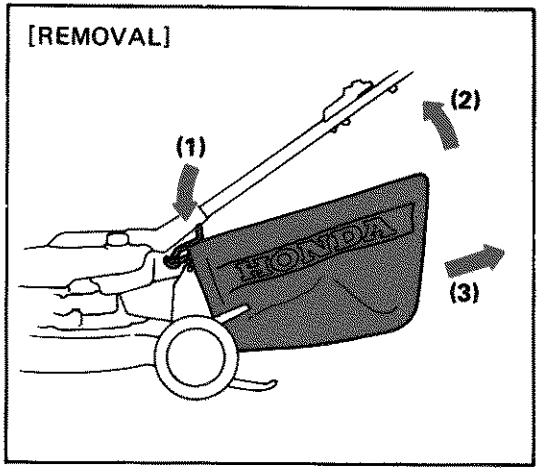
Clogged mesh will result in poor grass chuting and a wet bag will clog quickly.

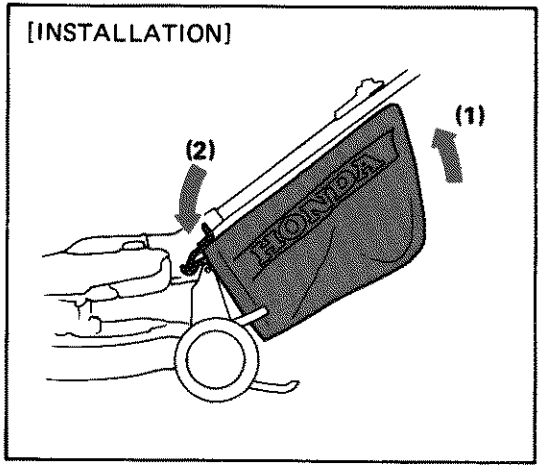
### Removal

1. Stop the engine.
2. Push the bag handle down, raise the back end, then remove the bag toward the rear of the mower.

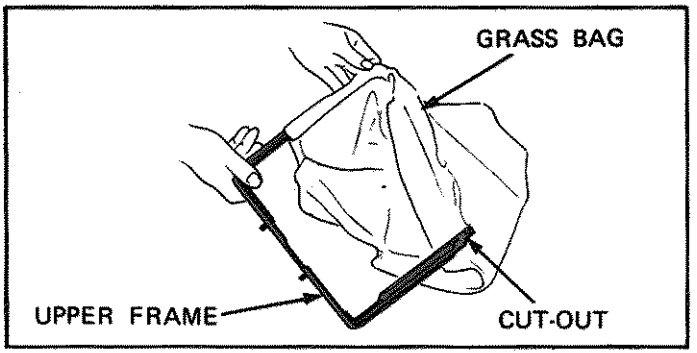
### Installation Notes

- Reverse the removal procedure.
- Be sure the bag is securely engaged or the discharge guard will not open completely and grass will not chute properly.

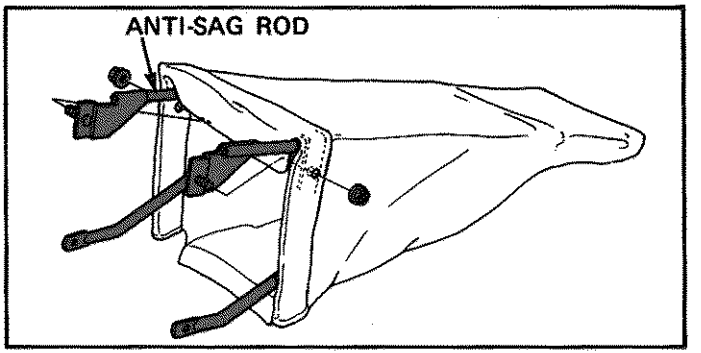


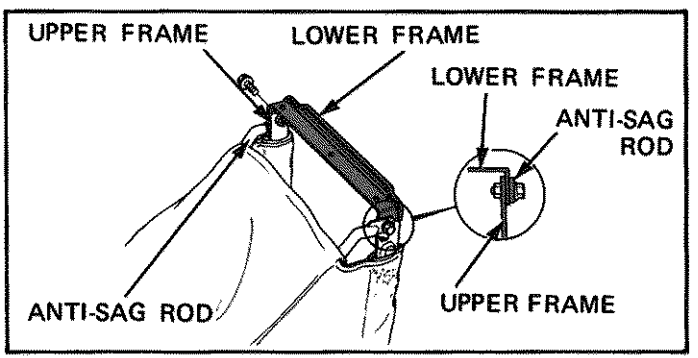
## Grass Bag Assembly



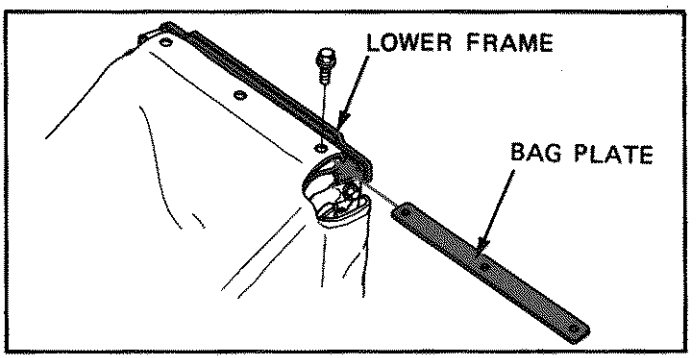

1. Work the upper frame into the grass bag with the cut-out ends forward.



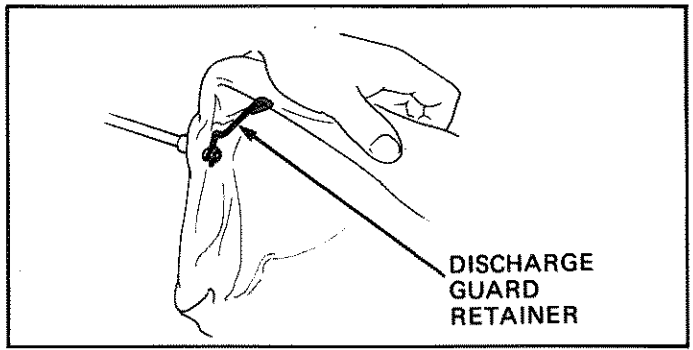

2. Place the anti-sag rod in the bag and secure it to the upper frame with two nuts.



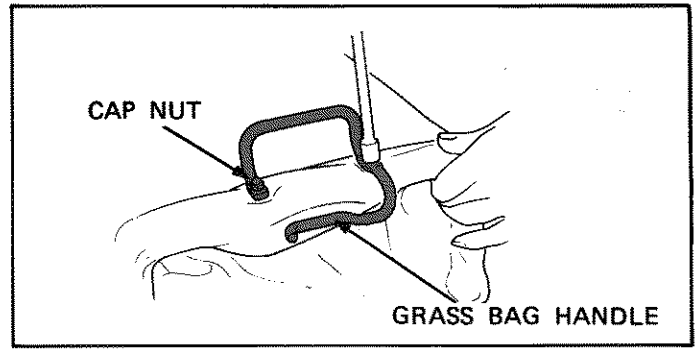

3. Point the lipped edge of the lower frame forward, place the bends into the cut-outs in the upper frame and tighten the lower frame to the upper frame together with the anti-sag rods using two 6 mm flanged bolts.




4. Work the bag plate into the grass bag and tighten them to the lower frame with three 6 mm bolts.




5. Install the discharge guard retainer as shown with a 6 mm bolt, nut and washer.



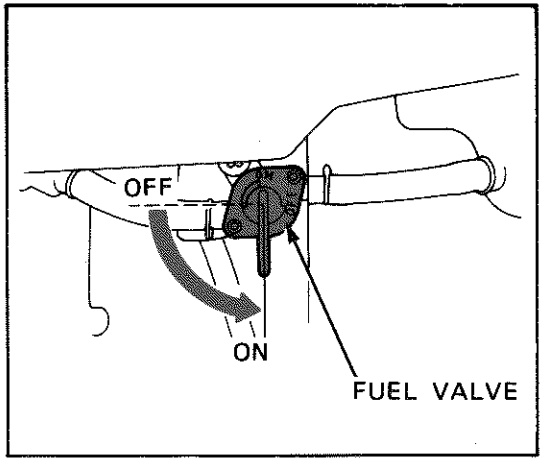

6. Expose the two stud bolts through the holes in the bag and install the grass bag handle to the bag with two 6 mm cap nuts.

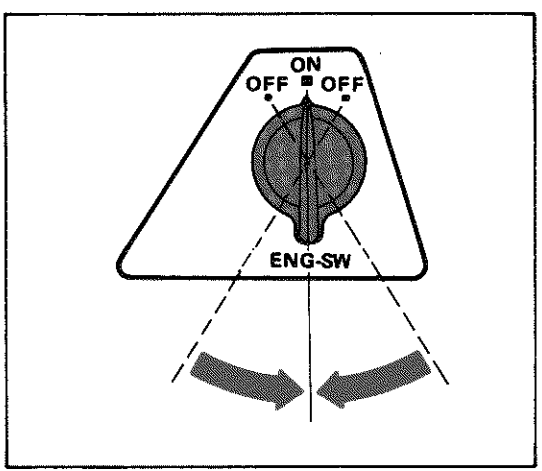
## STARTING AND STOPPING THE ENGINE

### Starting the Engine

**WARNING** Exhaust gas contains poisonous carbon monoxide. Never run the mower in an enclosed area. Be sure to provide adequate ventilation.

1. Turn the fuel valve ON.
2. Turn the engine switch ON.



3. Pull the starter rope lightly until you feel compression, then pull briskly.

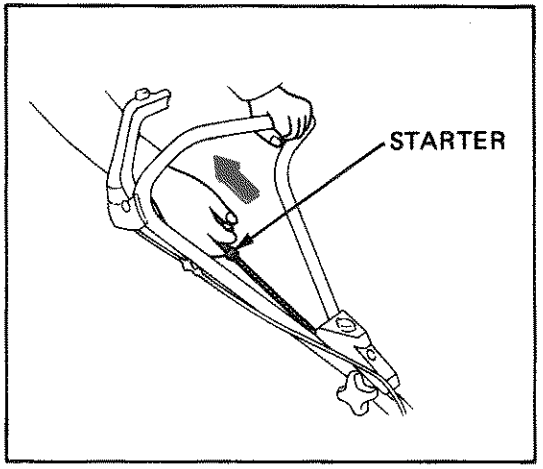
   NOTE: Do not allow the rope to snap back; return it by hand.

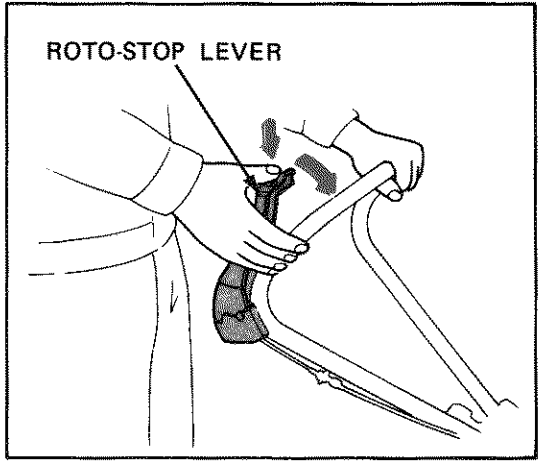
4. Press the button on top of the ROTO-STOP lever and push the lever forward rapidly, holding it against the handle bar.

   (The blade will stop soon after the lever is released.)

NOTE:

- If the ROTO-STOP lever is squeezed slowly, the engine may stall.
- If the blade is covered with grass or leaves before the lever is squeezed, the engine will run slower than normal until the blade is cleared. Wait until engine speed is smooth and steady before cutting.



**Flooded Engine**

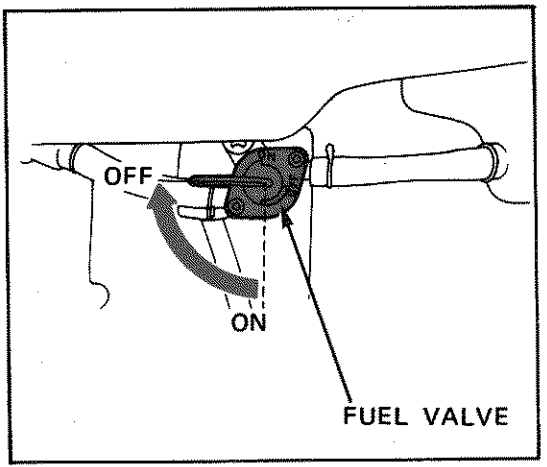
If the engine won't start after several pulls on the starter rope, the engine is probably flooded.

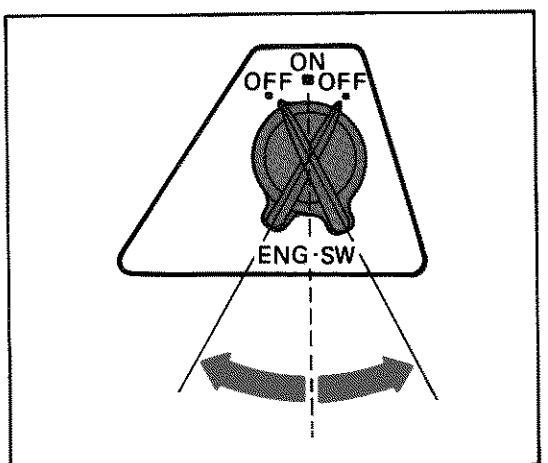
To clear a flooded engine:

1. Turn the fuel valve and engine switch OFF.
2. Remove and dry the spark plug. When re-installing the plug, thread it in by hand until it seats. Then tighten it an additional 1/8 – 1/4 turn with the spark plug wrench to compress the washer.
3. Repeat steps 1 – 4 under "Starting the Engine".

**Stopping the Engine**

1. Turn the engine switch OFF.
2. Turn the fuel valve OFF.

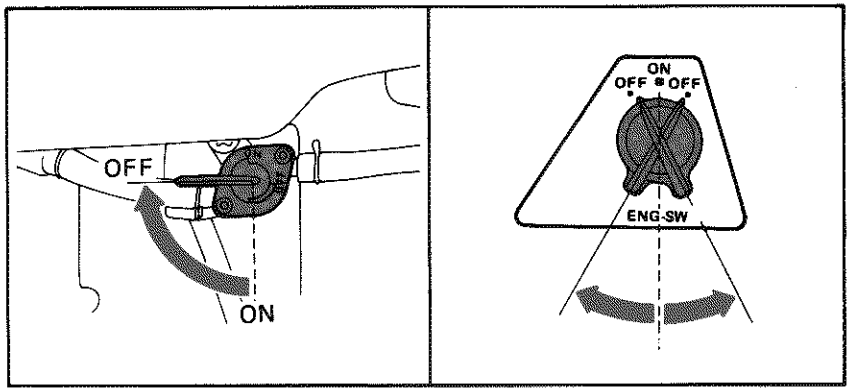


## TRANSPORTING/STORAGE

### Transporting

Turn the fuel valve and engine switch OFF when transporting the mower.

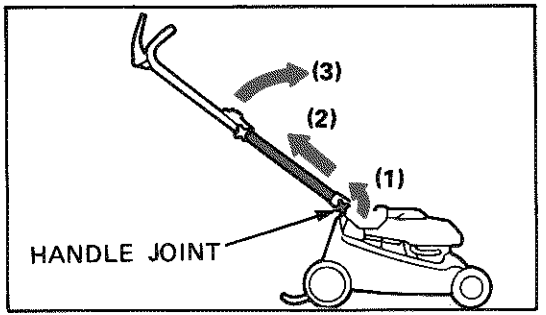


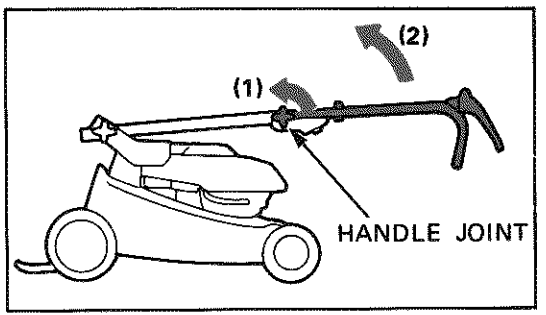

**WARNING** To avoid fuel and oil spillage, do not tilt the unit; spilled fuel may ignite.

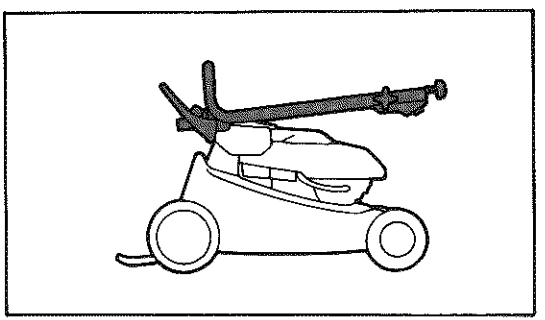
The handle may be folded for convenience :

1. Remove the grass bag (p. 11).
2. Loosen the handle joint, pull the handle pipe rearward and move the handle forward until it stops.
3. Loosen the handle joints and collapse the handle as shown.

**CAUTION:** Take care not to pinch the cable or wire between the handle pipes when holding the handle.



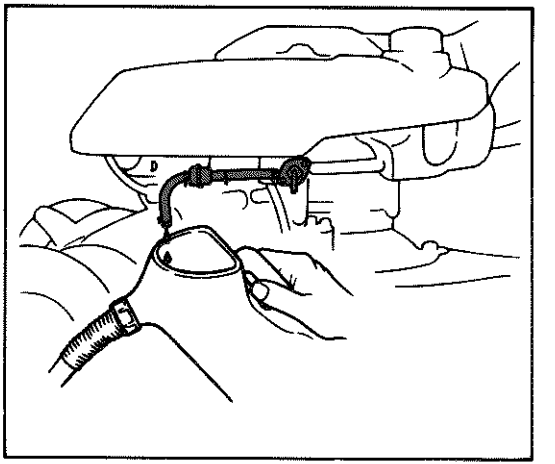
**Preparation for Storage**

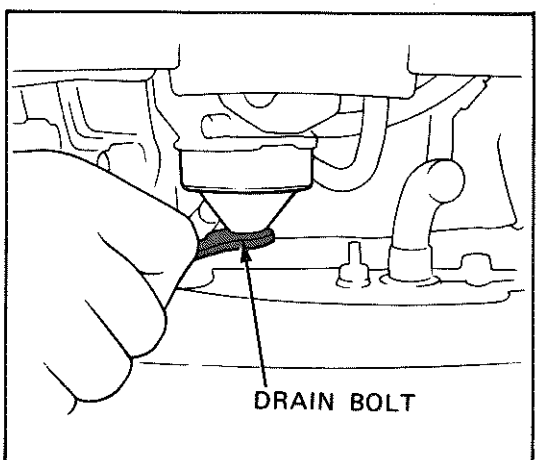
The following steps should be taken to protect the mower whenever it will be stored for longer than 30 days.

1. Drain the fuel tank and carburetor into an approved gasoline container:
   A. Disconnect the fuel tube at the carburetor and turn the fuel valve ON to empty the fuel tank.
   B. Place the container under the carburetor and loosen the drain bolt.
   C. Retighten the drain bolt, connect the fuel tube and turn the fuel valve OFF.

   **WARNING** Gasoline is extremely flammable and explosive under certain conditions. Do not smoke or allow flames or sparks in the area.

2. Change the engine oil (P. 22).





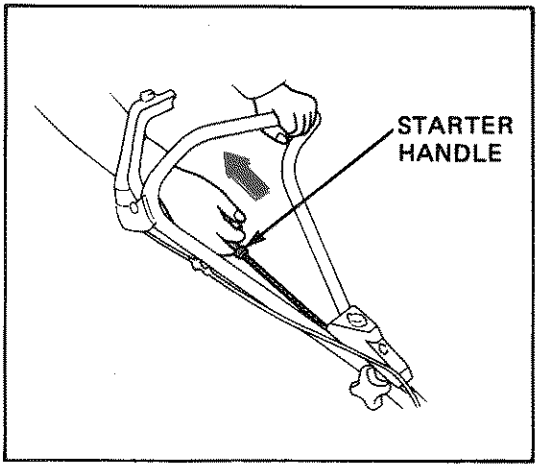
3. Pull the starter rope until it becomes hard to pull.
   This closes the valves and breaker points, and protects them from dust and corrosion.
4. Coat areas that may rust with a light film of oil.
   Cover the mower and store it on a level surface in a dry, dust free area.

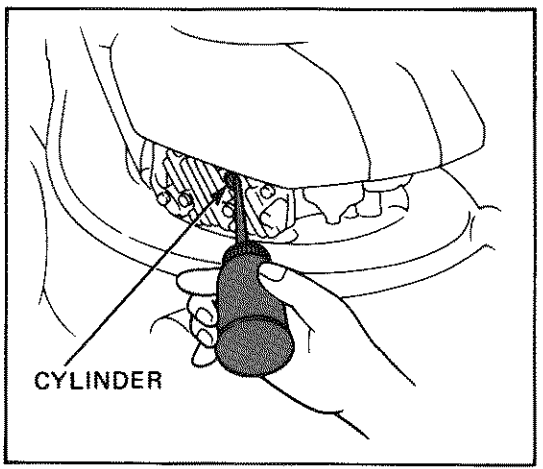
NOTE: If the mower will be stored for longer than a year, first remove the spark plug and pour three table-spoonful of clean motor oil into the cylinder. Pull the starter rope slowly two or three times to distribute the oil. Reinstall the plug.

**Removal From Storage**

1. Remove the spark plug; check that it is clean and properly gapped (p. 24). Pull the starter rope several times.
2. Thread the spark plug in as far as possible by hand, then use the plug wrench to tighten 1/8 to 1/4 turn further.
3. Check the engine oil level and condition.
4. Fill the fuel tank and start the engine.

NOTE: If the cylinder was coated with oil, the engine will smoke at start up; this is normal.



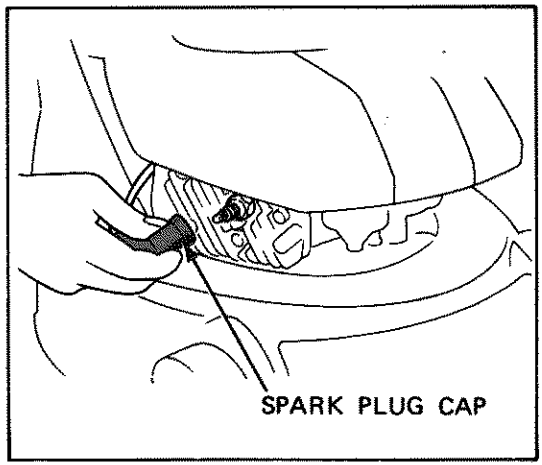



## MAINTENANCE

**WARNING** To prevent accidental start-up, turn the engine switch OFF, and disconnect the spark plug cap before performing any maintenance.

**CAUTION:** Use only genuine Honda parts or their equivalent for maintenance or repair. Replacement parts which are not of equivalent quality may damage the mower.

Periodic inspection and adjustment of the Honda HR17 is essential if high level performance is to be maintained. Regular maintenance will also ensure a long service life. The required service intervals and the kind of maintenance to be performed are described in the following chart.



## Maintenance Schedule

| Item / Regular Service Period: Perform at every indicated month or operating hour interval, whichever occurs first. | | Each Use | Initial 20 Hrs or first month | Every 20 Hrs or every month | Every 100 Hrs or 6 months | Every 300 Hrs or every year |
|---|---|---|---|---|---|---|
| Engine oil | Check level | ○ | | | | |
| Engine oil | Change | | ○ | | ○ | |
| Air cleaner element | Check | ○ | | | | |
| Air cleaner element | Clean | | | ○* | | |
| Blade nuts (Tightness) | Check | ○ | | | | |
| Grass bag | Check | ○ | | | | |
| Fuel filter | Replace | | | | ○ | |
| Spark plug | Clean-Adjust | | | | ○ | |
| Spark arrester | Clean | | | | ○ | |
| ROTO-STOP cable | Adjust | | | | ○ | |
| ROTO-STOP | Check | | | | ○** | |
| Ignition timing | Check-Adjust | | | | | ○** |
| Valve clearance | Check-Adjust | | | | | ○** |
| Combustion chamber | Clean-Lap valves | | | | | ○** |
| Fuel tank | Clean | | | | | ○** |
| Fuel tube | Check (Replace, if necessary) | | | | | ○ |

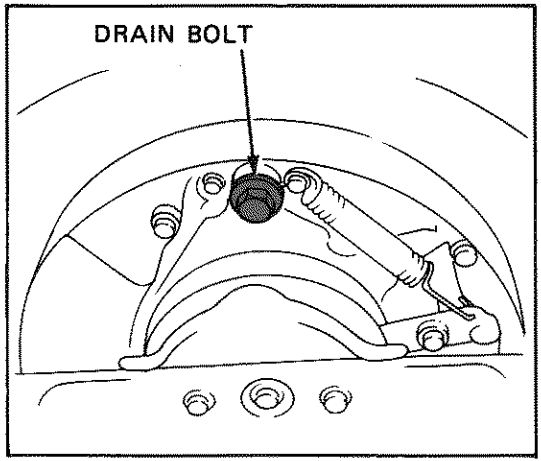
*: Service the air cleaner more frequently when used in dusty areas.

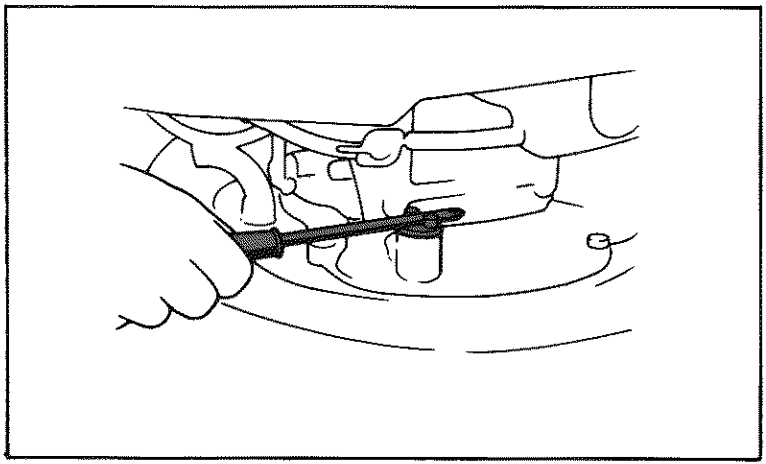
**: These items should be serviced by an authorized Honda dealer, unless the owner has the proper tools and is mechanically proficient. See the Honda Shop Manual.

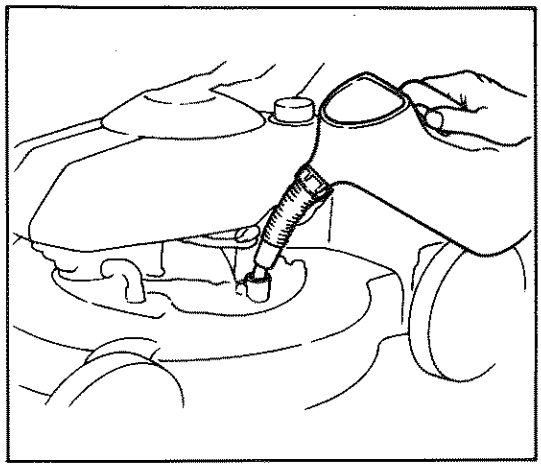
**Engine Oil Change**

Drain the oil while the engine is still warm to assure rapid and complete draining.

1. Remove the filler cap/dipstick using a screwdriver as illustrated.
2. Tilt the mower on its left side and support it in that position.
3. Place a suitable container under the drain hole and remove the oil drain bolt.
4. After the oil has drained completely, retighten the bolt securely.





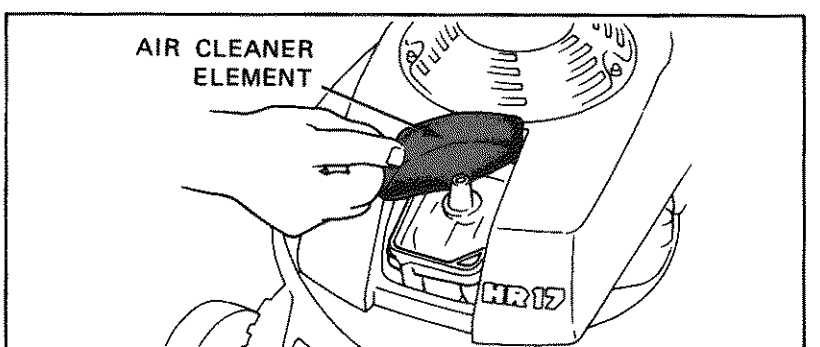
**Air Cleaner Service**

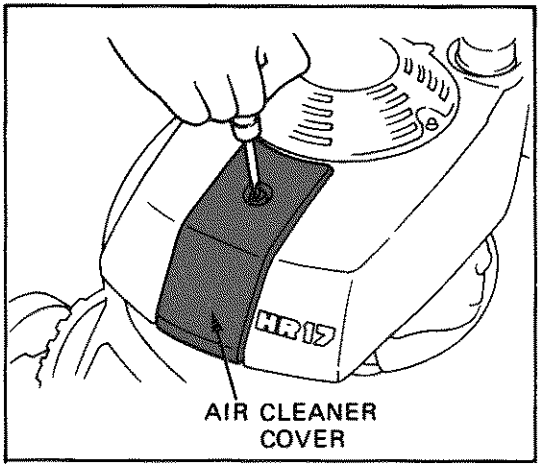
A dirty air cleaner will cause hard starting, misfiring, and excessive fuel consumption. Service the air cleaner at regular intervals, more frequently when used in dusty areas.

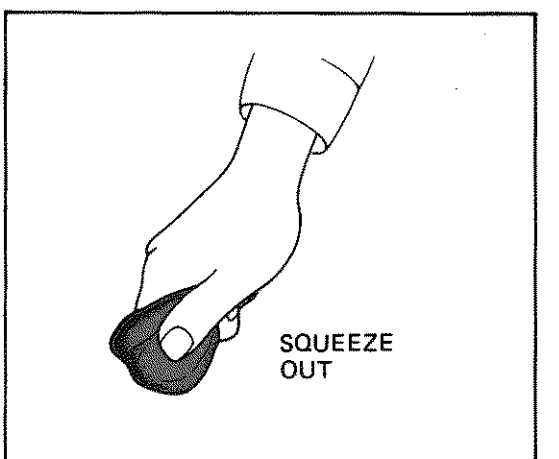
**CAUTION:** Never use the mower without the air cleaner. Rapid engine wear may result.

1. To remove the air cleaner element, loosen the screw using a coin or key, and remove the cover.
2. Wash the element in a non-flammable or high flash point solvent and dry it thoroughly.

   **WARNING** Do not use gasoline or low flash point solvents for cleaning. They are flammable, and explosive under certain conditions.
3. Soak the element in clean engine oil and squeeze out the excess oil.
4. Reinstall the element and the cover.



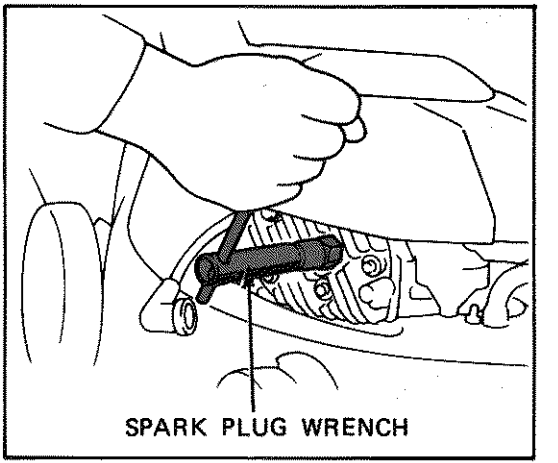



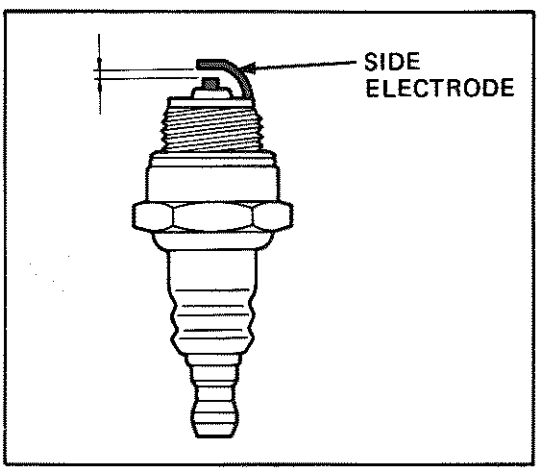



## Spark Plug

Standard Plug: BM-4A (NGK) or W14M-U(ND) or equivalent

1. Clean any dirt from around the spark plug.
2. Disconnect the cap and remove the spark plug.
3. Visually inspect the plug. Discard it if the insulator is cracked or chipped. The center electrode should have square edges and the side electrode should not be eroded. Remove any deposits with a wire brush.
4. Measure the plug gap with a wire-type feeler gauge; it should be 0.6 – 0.7 mm (0.024 – 0.028 in).
   If adjustment is necessary, bend the side electrode carefully.
5. Make sure the sealing washer is in good condition, and with the washer attached, thread the spark plug in by hand until it seats.
6. Use the wrench to tighten a new plug 1/2 turn further to compress the washer. If you are reusing the plug, it should only take 1/8 – 1/4 turn after the plug seats.
7. Reinstall the plug cap.




**CAUTION:**

- The spark plug must be securely tightened.
  An improperly tightened plug can become very hot and possibly damage the engine.
- Never use a plug with an improper heat range.

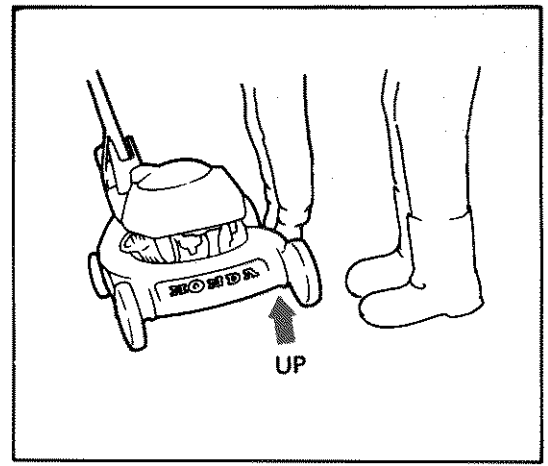
## Blade Removal and Sharpening

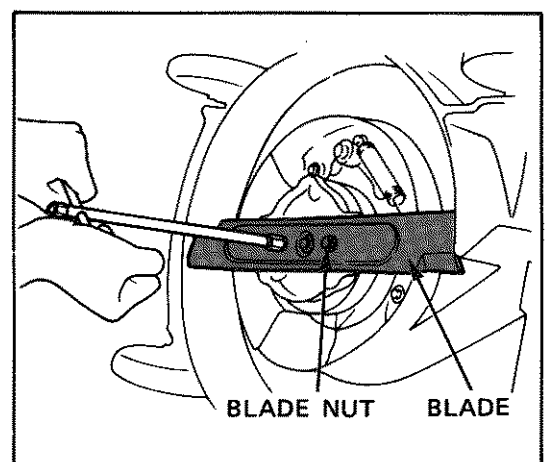
**WARNING** Wear heavy gloves to protect your hands.

1. Tilt the mower so the left side housing is up.
   Loosen the blade nuts to remove the blade.
2. Sharpen the blade cutting edges with a file. File the top side only. Maintain the original level for a fine cutting edge. File both ends evenly to maintain blade balance.

NOTE: Use only a genuine HONDA replacement blade or equivalent.

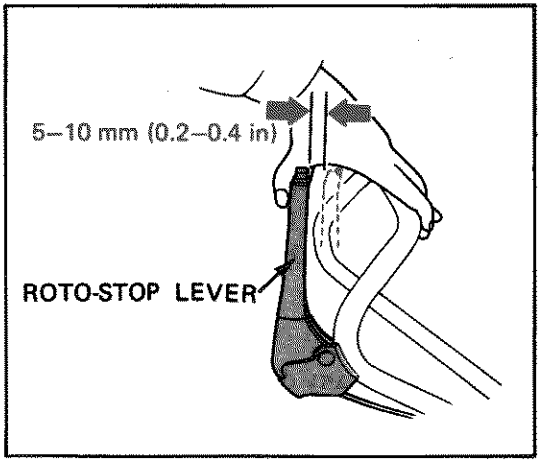
3. Clean away any dirt and grass from around the blade shaft.
4. Install the blade. Tighten the nuts securely.
   Torque: 3.0 – 3.5 kg m (22 – 25 ft lb)

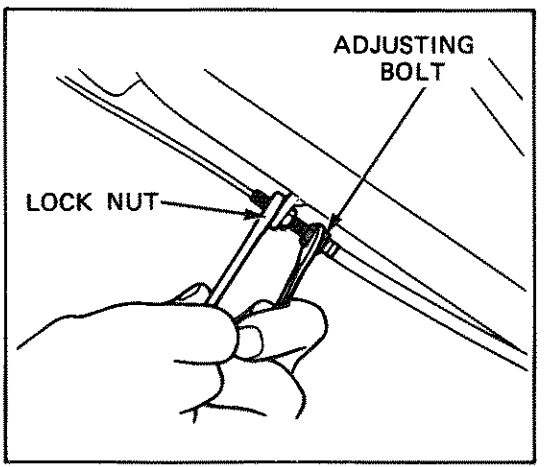


**ROTO-STOP Lever Free Play**

1. Measure free play at the tip of the lever as shown; it should be between **5 – 10 mm (0.2 – 0.4 in).**
2. If adjustment is necessary, loosen the lock nut at the lever cable and turn the adjusting bolt to increase or decrease free play.
3. Tighten the lock nut securely.
4. After adjusting, make sure the blade stops when the ROTO-STOP lever is released.

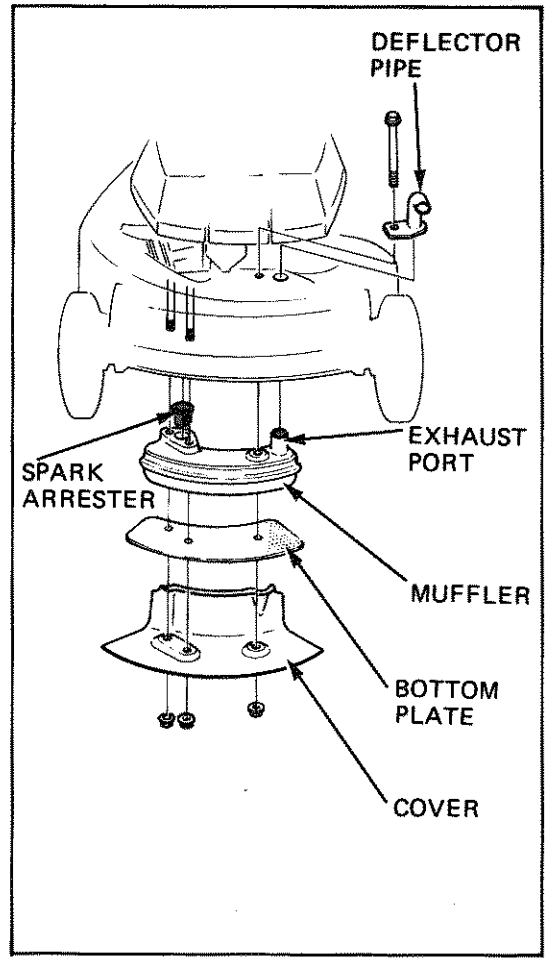


## Spark Arrester Maintenance

**WARNING** If the mower has been running, the muffler will be very hot. Allow it to cool before proceeding.

1. Loosen the flange nut and remove the deflector pipe and bolt.
2. Remove the two flange nuts and remove the cover, bottom plate and muffler.
3. Check the muffler exhaust port for carbon deposits. Clean if necessary.
4. Remove the spark arrester from the muffler.
   Clean the screen and inspect it for damage. Replace if necessary.
5. Install the spark arrester in the muffler.
   Install the muffler, bottom plate and cover and tighten them securely.
6. Install the deflector pipe with the flange nut and bolt.



## TROUBLESHOOTING

| | |
|---|---|
| Engine will not start | 1. No fuel.<br>2. Engine switch OFF.<br>3. Spark plug wire loose or disconnected.<br>4. Spark plug faulty or improperly gapped (p. 24).<br>5. Engine flooded (p. 16).<br>6. Dirty air cleaner. |
| Hard starting or loss of power | 1. Dirt in gas tank.<br>2. Dirty air cleaner.<br>3. Water in gas tank.<br>4. Vent in gas cap and/or carburetor clogged. |
| Erratic operation | 1. Spark plug faulty or improperly gapped<br>2. Dirty air cleaner. |
| Engine overheats | 1. Spark plug improperly gapped.<br>2. Dirty air cleaner.<br>3. Dirty cooling fins.<br>4. Low oil level.<br>5. Starter pulley clogged by grass, etc. |
| Excessive vibration | 1. Loose blade or engine mounting hardware.<br>2. Blade unbalanced. |

## SPECIFICATIONS

| | |
|---|---|
| MODEL | HONDA ROTARY MOWER HR17 |
| ENGINE | Honda G100 |
| Engine type | Side valve, single-cylinder, forced air-cooled 4-stroke gasoline engine |
| Displacement/Bore x Stroke | 76 cc (4.6 cu in)/46 x 46 mm (1.8 x 1.8 in) |
| Ignition timing | 20° BTDC, fixed |
| Ignition system | Flywheel magneto |
| Engine oil capacity | 0.44 ℓ (0.93 US pt) |
| Fuel tank capacity | 0.6 ℓ (1.27 US pt) |
| Spark plug | BM-4A (NGK) or W14M-U(ND) |

### FRAME

| | | |
|---|---|---|
| Dimensions (Length x Width x Height*) | | 1,310 x 450 x 1,025 mm (51.6 x 17.7 x 40.4 in) |
| Dry weight | P-DA type | 25.0 kg (55.1 lb) |
| | P-DAN type | 23.5 kg (51.8 lb) |
| Grass bag capacity | | 45 ℓ (1.49 bu) |
| Cutting width | | 420 mm (16.5 in) |

* With the cutting height 25.4 mm (1 in)

HONDA

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